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41. A communication network comprising a plurality of node devices,  
wherein at least one node device comprises:

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a first connection means for connecting a plurality of input channels for  
inputting a signal transmitted from a first node device;

a second connection means for connecting a plurality of output channels for  
outputting a signal to a second node device;

a changing means for changing an output channel for outputting a signal  
input from each of said input channels in accordance with a predetermined pattern; and

a control means for deviating a timing when a first output channel is  
selected as a channel for outputting a signal input from a first input channel for said first  
node device and a timing when a first output channel is selected as a channel for outputting  
a signal input from a first input channel of the node device, based on information input  
from said input channel.

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42. A communication network according to claim 41, wherein said at least  
one node device further comprises a memory means for storing a signal input from each of  
said input channels, wherein a signal stored by said memory means is output to said output  
channel.

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43. A communication network according to claim 41, wherein said  
predetermined pattern is one wherein a signal input from one input channel is not  
simultaneously output to a plurality of output channels.  
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44. A communication network according to claim 41, wherein said information input from said input channel is communicated by a control packet.

45. A communication network according to claim 41, wherein said information input from said input channel is communicated by a data packet for communicating data.

46. A node device, comprising:

a first connection means for connecting a plurality of input channels for inputting a signal transmitted from a first node device;

a second connection means for connecting a plurality of output channels for outputting a signal to a second node device;

a changing means for changing an output channel for outputting a signal input from each of said input channel in accordance with a predetermined pattern; and

a control means for deviating a timing when a first output channel is selected as a channel for outputting a signal input from a first input channel for said first node device and a timing when a first output channel is selected as a channel for outputting a signal input from a first input channel of the node device, based on information input from said input channel.

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47. A node device according to claim 46 further comprising a memory means for storing a signal input from each of said input channels, wherein a signal stored in said memory means is output to said output channel .

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48. A node device according to claim 46, wherein said predetermined pattern is a pattern wherein a signal input from one input channel is not simultaneously output to a plurality of output channels.

49. A node device according to claim 46, wherein said information input from said input channel is communicated by a control packet.

50. A node device according to claim 46, wherein said information input from said input channel is communicated by a data packet for communicating data.

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51. A communication control method for a communication network comprising a plurality of node devices which each communicate using a plurality of input channels and a plurality of output channels and which change an output channel for outputting a signal input from each of said input channels in accordance with a predetermined pattern, the method comprising the steps of:

performing a communication process for communicating predetermined information among the plurality of node devices; and